Date: Thu, 29 Sep 94 01:09:19 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V94 #1071
To: Info-Hams

Info-Hams Digest Thu, 29 Sep 94 Volume 94 : Issue 1071

Today's Topics:

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 28 Sep 94 18:56:43 GMT
From: news-mail-gateway@ucsd.edu
Subject: (none)
To: info-hams@ucsd.edu

SUBSCRIBE REC.RADIO.AMATEUR.MISC

Date: Wed, 28 Sep 1994 14:27:57 GMT
From: newsgate.melpar.esys.com!melpar!phb@uunet.uu.net
Subject: 2-meter communication range (long)
To: info-hams@ucsd.edu

How Far Can I Talk on 2 Meters?

by

Paul H. Bock, Jr. K4MSG

Recently, there has appeared on this forum some discussion regarding the "working range" of the VHF/UHF bands. This prompted me to develop a set of tables for the 2-meter band which demonstrate how different types of station setups can be expected to perform.

The ranges given here are *estimates* based on *smooth earth*, and in the interest of not misleading anyone I have tried to play the game conservatively. The actual distances were taken from a "path loss versus distance" graph which was first discussed by D.W. Bray, K2LMG, in 1961 and re-published by Ed Tilton, W1HDQ, in all three editions of "The Radio Amateur's V.H.F. Manual." If you don't have a copy of the old V.H.F. Manual and want to understand path loss at VHF/UHF a little better, I highly recommend looking for one at a hamfest.

Even with conservative estimates of performance, however, caution should be the watchword. Some locations just "seem to work better" for VHF than others, so remember that *your* mileage may vary. Variances aside, the tables should help newcomers understand something about the characteristics of VHF path loss and develop an appreciation of the necessity for carefully evaluating each planned improvement *before* shelling out a lot of dough.

There are four tables below: two for FM, and two for SSB. The tables are based on two *identical* stations, i.e., the distances given presuppose that equipment performance at both ends of the path is in all respects identical. The first table for each mode lists communications ranges for identically-equipped stations for 99% reliability, while the second lists ranges for 50%.

To understand why the numbers look the way they do you'd have to actually see the path curves themselves, because path loss

increases steeply out to 50 miles (at 50% reliability) or 100 miles (at 99% reliability), then flattens noticeably out to about 250 miles, then steepens again (but not as much as at the shorter distances). This means that below 100 miles (or 50 miles at 50% reliability) it takes quite a few dB of improvement to gain greater distance, but once over the "hump" in either curve small improvements can mean large increases in effective working range.

At the extremes of the flat portions where the curves steepen again (about 210 dBw path loss, representing ranges of 285 and 315 miles, respectively, for 99% & 50% reliability) the two curves run nearly parallel with about 30 to 40 miles difference between the ranges for any given path loss, and a range increase of about 5 miles/dB out to beyond 500 miles.

Here's an example of the significance of the flat portions after the "hump:" For 99% reliability, there is approximately a 21 dB path loss difference between 50 and 100 miles, but only a 10 dB difference between 100 miles and 250 miles. Assuming you were at the 100-mile "hump" in the path loss curve (which is actually a path loss of about 195 dBw), by increasing transmitter power, reducing receiver noise figure, replacing the antenna with one having higher gain, raising the antenna higher, or some combination you could make a significant improvement in your working range.

A word about the "50%" and "99%" nature of the tables: "99%" means that any time you turn on your rig you should expect to have the working range shown, under the stated conditions. "50%" means that about *half the time* you may work out this far, but half of the time you *won't*, either; and it *doesn't* mean 50% of each hour, or day, or week, it means 50% of the time over a long period (months, certainly; probably over a year is more like it). Also, the tables do *not* consider any of the more esoteric long-distance modes such as sporadic E or F2 layer skip, aurora, meteor scatter, or extreme tropo ducting caused by inversions or unusual air-mass boundary conditions, any of which can give working ranges of many hundreds or even thousands of miles. The tables only apply to the routine tropospheric propagation we all know and love. ;-)

The following assumptions were made in calculating the data contained in the tables:

1. Receiver noise figure was assumed to be 5 dB without a preamp, and 2 dB with a preamp (preamp located at the rig, not at the antenna; for example, an "integral" preamp common in commercial amplifier "bricks").

2. Receiver bandwidth was assumed to be 2.5 kHz for SSB and 12 kHz

for FM.

3. Transmission line loss was assumed to be 1.5 dB, and was added to the receiver noise figures listed above and subtracted from transmitter output power.

4. Antenna height gain for 30-foot antenna height is 0 dB, and for 60-foot height is 4 dB. The tables assume antennas are at the same height on both ends of the path.

5. Required SNR was assumed to be 3 dB. This may seem low for FM, but in fact a signal 3 dB above the "capture" level can be easily copied. What may happen, however, is that if the signal strength fluctuates near the capture point the signal may drop in and out continuously, making copy impossible. A SSB signal, on the other hand, will fade in and out more gracefully with at least partial copy even down close to the noise floor, making an exchange of grid squares, signal report, and callsign possible even under poor conditions. This is one reason why SSB is preferred over FM for weak signal voice work (another being the better sensitivity on SSB due to the narrower bandwidth and subsequently lower receiver noise floor).

6. Antenna gain was assumed to be the same at both ends of the path.

7. Ground reflection gain was assumed to be 3 dB (combined).

8. A factor of 7 dB was subtracted for fading loss in all cases.

I should note that the antenna gains shown were chosen to represent typical antenna configurations used on these modes: a 5/8 ground plane, omni collinear, and small & medium yagis for FM; two-element quad and small, medium & medium-large yagis for SSB.

Finally, as a "sanity check" on the numbers shown, I can vouch for the ranges shown for SSB stations with 25 watts output and a 12 dB yagi at 30 feet, and with 80 watts plus preamp and the same antenna. In fact, with 25 watts I've had QSOs out to 290 miles with better-equipped stations without any super-unusual ducting, just some good tropo path enhancement (but it's *definitely* in the "50% or less reliability" category).

So, without further ado, here are the estimated working ranges of identically-equipped FM and SSB stations for 99% and 50% reliability at 144 MHz.

TABLE 1. FM Range in miles @ 99% Reliability

	Antenna gain & height							
	3 dB		6 dB		9 dB		12 dB	
Configuration	30'	60'	30'	60'	30'	60'	30'	60'
5W, no preamp	28	42	38	52	48	63	59	75
25W, no preamp	40	53	50	65	60	77	72	96
80W w/preamp	53	68	65	82	77	110	96	230*
160W w/preamp	59	75	70	93	87	175	130	260

* See what happens when you're located right at or over the "hump" (i.e., at 96 miles)? The 4 dB improvement from raising the antenna MORE THAN DOUBLED THE WORKING RANGE!

TABLE 2. FM Range in miles @ 50% Reliability

	Antenna gain & height							
	3 dB		6 dB		9 dB		12 dB	
Configuration	30'	60'	30'	60'	30'	60'	30'	60'
5W, no preamp	37	50	46	73	63	123	110	195
25W, no preamp	48	80	67	135	115	205	180	255
80W w/preamp	80	156	135	230	205	263	255	283
160W w/preamp	110	195	168	253	240	273	265	293

TABLE 3. SSB Range in miles @ 99% Reliability

	Antenna gain & height							
	6 dB		9 dB		12 dB		15 dB	
Configuration	30'	60'	30'	60'	30'	60'	30'	60'
25W, no preamp	63	80	75	100	93	215	175	272
80W w/preamp	80	130	100	245	215	280	272	310
160W w/preamp	90	200	160	268	252	295	285	325

TABLE 3. SSB Range in miles @ 50% Reliability

	Antenna gain & height							
	6 dB		9 dB		12 dB		15 dB	
Configuration	30'	60'	30'	60'	30'	60'	30'	60'
25W, no preamp	123	215	195	260	253	280	273	300
80W w/preamp	215	265	260	285	280	310	300	345
160W w/preamp	250	275	270	297	290	325	315	365

If you have questions about the tables above, please feel free to drop me an e-mail. If there are inaccuracies or inconsistencies in the information the fault is mine, and if you find any please e-mail me and I'll post corrections and/or additional info as necessary, with due credit to the finder(s).

Finally, if you'd like a photocopy of the 2-meter path loss chart send me a *legal-size* SASE and I'll shoot one your way.

Mailing address: Paul H. Bock, Jr. K4MSG
RR1, Box 347
Hamilton, VA 22068

VY 73,

Paul, K4MSG

****

Paul H. Bock, Jr. K4MSG FM19ee Hamilton, VA U.S.A.
pbock@melpar.esys.com (703) 882-4745 (home)
E-Systems/Melpar Div.
Falls Church, VA
(703) 560-5000 x 2062

"Imagination is more important than knowledge." - A. Einstein

****

Date: Tue, 27 Sep 1994 15:11:46 GMT
From: ihnp4.ucsd.edu!pacbell.com!sgiblab!spool.mu.edu!howland.reston.ans.net!cs.utexas.edu!oakhill!tjohnson@network.ucsd.edu
Subject: [LOOKING] for ftp site w/ham-exams
To: info-hams@ucsd.edu

Does anyone know of a good ftp site which has recent example-tests or

a program that generates them from a question pool. My nieghbor wants
a PC program which can generate random tests.

email or post.

Thanks.

Terence

Date: 28 Sep 94 16:28:25 GMT
From: news-mail-gateway@ucsd.edu
Subject: Camry Installation
To: info-hams@ucsd.edu

I read of a Toyota Celica who's sunroof opened because of surrounding
RF. The sunroof control is run by a micro-controller system with
push buttons in the headliner. The sunroof is programmed to open
with a single touch of the switch, and to sense "fingers in the way"
when it closes. Nice ideas but the trouble was that the RF was coming
from some heavy-duty motors in the drive-thru carwash. Yes, the car's
interior was soaked.

I would expect lots of electronics would act "wildly" or be ruined
if they're not RF shielded. If Toyota, who is very good with reliabilty
and customer reputation, actually said "Don't do it" I would believe
them. (especially when QST told them what their inquiry was for)

=Mark=

Date: Tue, 27 Sep 1994 14:22:39 GMT
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!gatech!ncar!csn!
jwdxt@network.ucsd.edu
Subject: Colorado Repeater Assn.
To: info-hams@ucsd.edu

Does anyone have a phone number I could call to get my CRA membership
underway? I have the mailing address from the Repeater Directory, but it
does not contain any membership information and I'd like to talk to a real
person so I can send everything I need the first time.

Thanks,

Jim Deeming
KB0MED

Date: Wed, 28 Sep 1994 02:15:17 GMT
From: psinntp!colmiks!psc@uunet.uu.net
Subject: Info wanted on a tube...
To: info-hams@ucsd.edu

I picked up a tube earlier this year, seeing that it was an interesting tube to begin with. But I haven't been able to find any info on this tube.

It is an Eimac 8252 tube (4PR60C). Any and all info would be very welcomed on this tube. But mostly I need the plate, screen, grid and filament voltages, and current for them as well.

```
--
+-------------------------------------------------------------------------+
: Philip Cook   :  Sysop of Dragon's World BBS  :  Amateur Radio Operator :
: psc@colmiks.  :         203-294-1813          :         N1OKM           :
: colmiks.com   :    A Commodore C*Base BBS     :       ARRL member       :
```

Date: 27 Sep 1994 15:16:29 -0400
From: psinntp!JH.Org!not-for-mail@uunet.uu.net
Subject: License Granted :-)
To: info-hams@ucsd.edu

Today, 9/27, the FCC graciously granted my license after a 9 week and 2 day delay. My call sign is KB2RVE.

Now I have to wait for another branch of the US government to deliver the license in the mail! (I checked the regs, 97.9 (a) says that I must have the license or a photocopy thereof. Bummer :-( )

Thanks to all those who listened to me complain, especially those who took the time to write back.

73s,
Steve: KB2RVE

```
--
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
ss@jh.org   Steve Steinberg   Amateur Radio Callsign: KB2???
```

Date: 27 Sep 1994 12:24:09 GMT
From: lerc.nasa.gov!lerc.nasa.gov!grybicki.lerc.nasa.gov!seryb@purdue.edu
Subject: Motorola Radius Questions
To: info-hams@ucsd.edu

I have a few questions for someone familiar with Motorola Radius HT's.

I found a Radius P10 at a hamfest recently. To my surprise and delight it was set up for 6M.
The unit was set up for one channel 52.525 simplex. I was not aware that Radius was available in VHF Low band.

The questions.

1. The unit has a 2 position channel switch, can it be set up for 2 channel operation?

2. How do you set it up? Does it require a second channel element/ xtal or just
reprogramming?

3. The antenna is a thick, rather long rubber duck with a yellow dot on the base. Is this the
correct antennna for vhf low?

4. Any related general info would be appreciated.

Thanks

George (KE8YX)

Date: 29 Sep 94 14:50:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: Ohio/Penn DX Bulletin #176 (re: FR/G no CW)
To: info-hams@ucsd.edu

For all of you out there, the die hard CW people that is, there is nothing wrong with Phone, neither is anything wrong with people that have forgotten CW. History has often shown that the more the cynic, the less the gain. If you want people to do CW, encourage them, not put them down. And get rid of comments like the final paragraph below. They only alienate you (and people like you that start CW DX discussions like "...and we did 1000 CW contacts, for those that remember what CW is....) from everyone else.

Peter, KC1QF

pve@dg13.cec.be

From: dx-request
To: DX Reflector
Subject: FW: Ohio/Penn DX Bulletin #176 (re: FR/G no CW)
Date: Wednesday, September 28, 1994 9:28AM

FR/G, GLORIOSO. Rumor from 256 Group is that FR/G tentatively is scheduled for December 1994 and again for July 1995. The operator on FR/G will probably be Jacques, FR5ZU. It is believed he only operates on SSB nets, some RTTY but no CW.

Nets only? NO CW? Geeeee...aren't we just unbelievably surprised.
73,Tom WB4iUX (Tom.Skelton@ClemsonSC.NCR.COM)

Date: 28 Sep 94 18:16:08 GMT
From: news-mail-gateway@ucsd.edu
Subject: Power Connector for Kenwood Mobile
To: info-hams@ucsd.edu

I want to wire the power connection for my Kenwood into all of my vehicles, allowing easy removal and switching between them. I have looked for the DC Power connector at several stores and at connector vendors at recent Hamfests. I have never seen the correct connector. It's a two pole with one blade at a 90 degree angle to the other. Anyone know where I could get 3 or 4 of these? If I can't find the origional connector, I'll just install a connector pair that is readly available, but I hate to cut the old connectors off if I dont have to. I might buy another Kenwood and want to use it interchangably with the one I now have.

A second connector question. I'v also been looking for a connector to allow use of a the small Standard Marine HT (I think it may be a 230, but not sure) with an external antenna. The rubber duck has a strange connector that I have not seen anywhere. I even carried the antenna to the York Hamfest and asked several of the guys with bins of connectors if they could help. After studying the connector, they said that they could not match it. Previous Marine HT's had BNC's and were easy to use with the big marine antenna that I use for the 25 watter. Sure make a difference in commo range on the water, and I'd like to be able to use the HT with the more effecient antenna.

Date: 28 Sep 94 12:24:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: PRO-23 Mod
To: info-hams@ucsd.edu

The following information was picked up off of one of the local Packet BBS. This is the ONLY information I have seen concerning the PRO-23 scanner from Radio Shack. I don't have the PRO-23 so don't know if this works or not but the individual who posted the message claims success with no problems! Usual disclaimers apply!

Hold down 2, 9, and LOCKOUT while turning on the scanner. DOING THIS WILL WIPE OUT ALL OF YOUR MEMORY LOCATIONS but will give you access to the following frequencies:

Channel-Frequency

1-138.150
2-162.400
3-173.225
4-406.875
5-453.250
6-511.9125
7-108.500
8-118.800
9-127.1750
10-135.500
11-157.800
12-482.3625
13-806.000

14-857.200
15-888.960
16-911.500
17-954.9125

The last 3 or 4 are out of the normal coverage area for the PRO-23 and will allow you to scan up and down in the full cellular range. Hope this helps.

Date: Tue, 27 Sep 1994 14:49:04 GMT
From: amd!amdint.amd.com!txnews.amd.com!bianca!sgoad@decwrl.dec.com

Subject: Probs w/ hm2plus & Xerox Sys 60 PC
To: info-hams@ucsd.edu

My neighbor is trying to set up hm2plus vers 3 on a Xerox Sys 60
PC. The PC is running DOS 6.2 and is very plain. When the
hm2plus software loads up it hangs after the opening display.
The keyboard is locked up as well (ie, CTRL-ALT-DEL does not work.)

He has no documentation for the PC and thus I'm sort of at a loss as
to what to do to make it work. If he runs it on his Dell 386, the
program works great.

Does anyone have any useful suggestions?

You can reach me at scott.goad@amd.com or post it here, although I
can't image that very many people have this problem.

Thanks for your help,

Scott
KC5AQD

Date: 27 Sep 1994 13:15:25 GMT
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!news.cac.psu.edu!news.pop.psu.edu!
psuvax1!news.cc.swarthmore.edu!netnews.upenn.edu!news.drexel.edu!news.ge.com!
news.ge.com!rsnyder@network.
Subject: Radio Shack Plays Historical Role
To: info-hams@ucsd.edu

>>>>> "N7OZH" == O D Williams <odwill@xmission.com> writes:

    N7OZH> Gee, Wayne Greene is right, those ARRL guys really are out
    N7OZH> of touch with reality! Anybody know what an ARRL "Vice
    N7OZH> Director" does. I figure he's either gotta police it or
    N7OZH> provide it.

Wayne Greene doesn't exist anymore. His ego's exapnded to fill the
rest of his body, at least judging from the editorials I've read.

    N7OZH> You know, I thought Wayne was being too hard on the ARRL
    N7OZH> until I joined it two months ago. You get a free book when
    N7OZH> you join. I picked the repeater directory because mine was
    N7OZH> a '91 model. I had been seeing the '95 edition in the
    N7OZH> stores, in the magazines (including QST), and at hamfests.
    N7OZH> Imagine my surprise when my "new" book arrived and it was a
    N7OZH> '94 version! Now we know how the ARRL gets rid of all

N7OZH> those outdated license manuals, they give them as
N7OZH> "freebies" to newcommers!

Seems like a better use for it then thowing it away/recycling it.
The ARRL probably should have said someplace that you may get older
books. I don't know; the ARRL did do this when I joined.

Bob

Date: 28 Sep 94 12:31:34 GMT
From: news-mail-gateway@ucsd.edu
Subject: Restrictive Covenants: I can't have *any* antenna?
To: info-hams@ucsd.edu

|> and I have NEVER even talked to a cable TV company. The convenants are
|> put in because the buyers want them. Its very simple: it is what the
|> market wants not some sinister conspiracy. Sorry.
|>   Ned Hamilton   NTC   Department of Neurosurgery
|>   nedh@virginia.edu   University of Virginia

well, i actually think something like this is not true either. although i
would think the builder would like to get all the utilities to get in early to
avoid having to trench up the place later & to speed future installations.

odds on favorite is that most people don't care - most don't have a need for
an aluminum christmas tree up 80 feet or so and most wouldn't care if their
neighbors had one as long as it was installed properly and maintained.

but there are a few people who DON'T want antennas and are quite vocal about
it almost every time they get a chance to express themselves. and there are
those who don't maintain an outdoor antenna system (ham or not...look at the
number of outdoor antennas that were put up 20 years ago and forgotten about).

there was also the CB Boom that contributed to the above as well.

so what have we got? we have general rules produced from a few specific
situations and those rules are in the "standard form contract" the developer
uses that he gets from his law firm that in turn probably bought it from
another firm that specialized in making up contract kits. similar ones
available for starting up businesses, non-profit organizations, etc.

and the standard contract is probably based on a series of revisions over time
as laws were passed/repealed etc.

so..the builder wants to make sales and he doesn't want to have some schmuck
move in first and trash the place...some people think antenna structures, TVRO

dishes (Big Ugly Dishes or BUDs), and such are so repulsive that they'll not have anything to do with them...so the builders get the standard forms updated and that noise goes away and they make sales...the forms get passed around and before long everyone's got a clause saying "no <insert favorite thing here>".

bill wb9ivr

Date: 28 Sep 1994 07:55:04 -0400
From: cambridge.village.com!cambridge.village.com!not-for-mail@uunet.uu.net
Subject: Small, portable Ch3 tuner?
To: info-hams@ucsd.edu

Greg, what you need is an old cable-TV box. Many of them come with video and audio output jacks, and can easily be hacked to do what you need. Check a few flea markets and you probably won't pay more than $10.

Greg
Bassett (bassett@merlot.syntex.com) wrote:

: --
: Ah, yet another unusual unique need...

: I'm at the R/C model field. I have my new micro-miniature camera and ATV
: tranmitter in the airplane. I have this wonderful expensive camcorder that
: can act as a VCR on batteries. I have my ATV downconverter. I want to fly
: the plane and capture the moments forever on metal particle tape.

: Only one small problem. I can't get from Channel 3 (output from ATV
: downconverter) to the VCR (NTSC input).

: The only commercial solution I've seen if from PC Electronics in the form
: of a very nice receiver (~$100). Since I spent so much money on the micro-
: miniature camera and ATV transmitter, I'd sure like to find an inexpensive
: solution to this problem.

: Any suggestions?

: Thanks and regards,
: Greg

: --
: Greg Bassett bassett@merlot.syntex.com
: Syntex Corporation

: (415) 855-5825   KJ6EP@N6QMY.#NOCAL.CA.USA.NA
: --

Date: 28 Sep 1994 00:15:02 -0400
From: newstf01.cr1.aol.com!newsbf01.news.aol.com!not-for-mail@uunet.uu.net
Subject: The Hamblaster
To: info-hams@ucsd.edu

Roger Clark at   rjc@crosfield.co.uk tried to get in touch with me about
the Hamblaster.   For some reason I was unable to return his E-mail.

I hope that he sees message this and replies via E-mail at my address.

Jack Albert

WA9FVP

Date: 28 Sep 94 18:03:09 GMT
From: news-mail-gateway@ucsd.edu
Subject: TNC-1 / HD4040 Packet
To: info-hams@ucsd.edu

Hi
 Don't laugh, but I have an old Heathkit HD4040 TNC that I use occasionally
 at work with an HT. While I have the manual for it, I don't have a
schematic. Is it still possible to get schematics for old Heathkit stuff,
and/or alternatively, does anyone have a schematic from which a copy could
be made? This TNC is a TNC-1 clone, and has very old software. Is there an
FTP site anywhere that might have more recent TNC-1 ROM software, and/or
assembly language source for any TNC-1 software? I would like to make
some minor changes to the code, to correct a few annoying features. Also,
I have a 6809 cross assembler, but I have been unable to find a 6809
dissassembler, except for one that runs on a COCO, and it is buried deep in
an old parts box somewhere. I'd like to find a a 6809 dissassembler that
would run on a PC.
  Finally, this TNC is supposed to function as/with an eprom programmer, but
the manual doesn't tell you how. Has anyone used this feature?
Thanks in advance & 73
de Bill, N3JLQ   wejones@cbda7.apgea.army.mil

Date: 27 Sep 1994 10:51:55 GMT
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!vixen.cso.uiuc.edu!prairienet.org!

folson@network.ucsd.edu
Subject: ZAPPING NICADS - HELP
To: info-hams@ucsd.edu

Does anyone know how to Zap a nicad quick and easy. I've heard
different ways of doing it. But I would like to here some
fool-proof way. I have several dead nicads that I would like to
bring back to life or at least try.
Some of the methods I've heard of are a bit riskey. I'll except
any inputs. ....Thanks...email please
--
Fran Olson (WB9ULS)   email:folson@prairienet.org
P.O. Box 1122
Champaign, Il. 61824-1122
U.S.A.

Date: 27 Sep 1994 23:23:37 -0400
From: news1.digex.net!access2!arctic@uunet.uu.net
To: info-hams@ucsd.edu

References <CwpntB.GCM@rci.ripco.com>, <1994Sep27.003238.2951@hnrc.tufts.edu>,
<Cwt0uq.1qF@vcd.hp.com>(
Subject : Re: Receiving Morse code transmissions

dmunroe@vcd.hp.com (Dave Munroe) writes:

>Jerry Dallal <jerry@hnrc.tufts.edu> wrote:

>>You'll hear morse code on many frequencies. Stations are required to
>>identify themselves and CW is legal for id regardless of the usual mode
>>of transmission.

>Can my scanner (a Pro-37) receive a true CW (A1A) transmission? I've picked up
>id's in Morse code from Ham repeaters, but I thought those were generated tones
>sent out on FM.

>The reason I ask is because I'd like to receive the slow-code and fast-code
>practice sessions sent out by W1AW on 147.555 MHz. Problem is, I've never
>been able to get anything. I've not been able to receive W1AW voice broadcasts
>either, so maybe I just need to get up on a hill or replace the rubber duck
>with something better.

>-Dave
The reason you can't, is that VHF is line of sight, so if you're farther than
20-50 miles (since W1AW is in Connecticut..), you won't be able to hear it.

Look for a cheap shortwave radio at a yard sale, with a "BFO" control.

Date: Tue, 27 Sep 1994 15:23:15 GMT
From: ihnp4.ucsd.edu!pacbell.com!sgiblab!swrinde!gatech!cs.utk.edu!
stc06.CTD.ORNL.GOV!xdepc.eng.ornl.gov!wyn@network.ucsd.edu
To: info-hams@ucsd.edu

References <CwJxnD.51n@odin.corp.sgi.com>, <CwLwzv.90D@news.Hawaii.Edu>,
<365sjn$s1c@unet.net.com>v
Subject : Re: Why is aviation COM VHF *amplitude* modulated?

In article <365sjn$s1c@unet.net.com> larson@loren.net.com (Alan Larson) writes:

>In article <CwLwzv.90D@news.Hawaii.Edu> jeffrey@math.hawaii.edu writes:
>>(Jerry Bransford) writes:
>->
>->>It still has little to do with FM capture effect. It's purely economic.

I just got back from a lecture on the communication system for the early NASA space activities at our radio club. The capcom radios used in the Mercury program, (1962) and I think he said the Gemini program were all AM on HF, VHF. The lecturer said there were problems with the doppler effect and with antenna polarization, even on AM. Could these be more of a problem on FM, and be another reason why AM was used there and is still used on aircraft?

What about weight? Weight is not a problem with land mobile but every ounce counts on spacecraft/aircraft. Does a comparable NBMF radio weigh more than an AM radio? One of the first FM applications were radios on WWII battle tanks.

Sorry if I am late posting to this thread, it just became interesting after the NASA radio lecture.

73,
C. C. (Clay) Wynn, N4AOX
wyn@ornl.gov
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= Cooperation requires participation. Competition teaches cooperation. =
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End of Info-Hams Digest V94 #1071
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